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PROCEEDINGS OF LEARNED SOCIETIES.

ZOOLOGICAL SOCIETY.

Sept. 22, 1846.—William Yarrell, Esq., Vice-President, in the Chair.

John Gould, Esq., laid before the meeting the following letter, detailing the circumstances of the death of Mr. John Gilbert, who formerly had been many years in the employment of the Society. He fell in the service of zoological science during an expedition into the interior of Australia.

"Sydney, May 12, 1846.

"Dear Sir,—As I was one of the party that journeyed from Sydney to Port Essington, and not knowing whether you had been made acquainted with the full particulars of poor Gilbert's death by Dr. Leichhardt, or any other of the party, thinking the details of his melancholy fate would be read with interest, I shall offer no apology for addressing this to you.

"As Mr. Gilbert's log, which has been sent home to you, fully narrates all particulars up to the eventful 28th of June, I shall offer no remarks of my own. At the most northerly point we reached on the east side of the Gulf of Carpentaria, in lat. $15^{\circ} 57'$, and about fifty miles from the coast, we encamped for the night at a small shallow lagoon surrounded by low tea-trees, the country around beautifully open. Having partaken of our usual meal of dried meat about 3 P.M., Gilbert, taking his gun, sallied forth in search of something new—he procured a *Climacteris* and a Finch, which he skinned before dinner; our scanty meal was soon despatched; poor Gilbert was busily employed plaiting the cabbage-tree, intending to make a new hat, which, alas! he never lived to finish. The shades of evening closed around, and after chatting for a short time we retired to our separate tents—Gilbert and Murphy to theirs, Mr. Calvert and myself to ours, and Phillips to his; the Doctor and our two black fellows slept round the fire, entirely unconscious of the evil designs of the natives; having always found those we had passed so friendly and well-disposed, we felt in as great security as you do in the midst of London, lying on our blankets, conversing on different topics. Not one, I think, could have closed his eyelids, when I was surprised by a noise, as if some persons were throwing sticks at our tent; thinking it must be some trick played on us by our companions, I sat up to look out; another volley of spears was thrown; a terrific yell, that will ring in my ears for ever, was raised, and pierced with spears, which I found it impossible to extricate, I sunk helpless on the ground; the whole body rushed upon us with their waddies,

and how it is that our brains did not bespatter the ground is to me miraculous. These rascals had crept on us under cover of the tea-trees: the tent in which Calvert and I were being first in their road, the whole body attacked us; poor Gilbert, hearing the noise, was rushing from his tent with his gun, when a spear thrown at him pierced his breast, and, penetrating to his lungs, caused internal hæmorrhage; the only words he spoke were these, 'Charlie, take my gun; they have killed me,' when pulling the spear out with his own hands, he immediately dropped upon the ground lifeless. Little Murphy, who was by his side at the time he was speared, fired at the black fellow who speared him; Brown fired at the mob beating Calvert and myself, and they immediately retreated howling and lamenting. Mr. Calvert was pierced with five spears, myself with six, and our recovery is to be attributed to the abstemious way in which we lived. After having the spears pulled out, you may imagine our feelings when we heard Charlie exclaim, 'Gilbert is dead!'—we could not, would not, believe it. Alas! the morning brought no better tidings—poor Gilbert was consigned to his last and narrow home; the prayers of the church of England were read over him, and a large fire made upon his grave for the purpose of misleading the blacks, who, we thought, would probably return and search the camp on our departure. It is impossible to describe the gloom and sorrow this fatal accident cast upon our party. As a companion, none was more cheerful or more agreeable; as a man, none more indefatigable or more persevering; but it is useless for me to eulogize one so well-known to you—one whom you will have cause to regret, and who will ever be remembered by,

“ Sir,

“ Yours most truly,

“ JOHN ROPER.”

The skull of a Seal was exhibited to the meeting, presented by the Society's Corresponding Member, Richard Hill, Esq., who refers to it in a letter, dated Spanish Town, Jamaica, July 8, 1846, as “ a skull of an undescribed Seal found on the islands and shoals called by the seamen the Pedros, but known as the Vibora Bank on the old Spanish charts, situated about a degree to the south of Jamaica.”

Mr. Hill's letter proceeds: “ The most detailed account I can give of this Seal, in addition to the facts presented by an inspection of the cranium, which will be found to have much of the contour and character of that of the *Calocephalus* of Frederick Cuvier, will comprise little more than the statement that it has no external auricles: the foramina are so small that all trace of an ear to a casual observer is imperceptible. The colour of the animal is intensely and uniformly black; the hair is stiff and close, and very short; the nails of the hinder claws are rudimentary; the eyes are large, black and full, and the iris crimson.

“ The measurements of the specimen from which the cranium sent was obtained, are the following:—

	ft.	in.
Total length along the back from the snout to the tip of the tail	4	2

	ft.	in.
Length of the tail	0	3
From the snout to the insertion of the fore-paw	1	6
From the insertion of the fore-paw to that of the hind-paw.	2	10
Circumference of the body near the fore-paws.	3	2
Breadth of the back at the fore-paws	1	0
From one fore-paw to the other, extended out	2	6
Length of the fore-paw	0	10
Length of the hind-paw.	0	11
Circumference at the hind-paws	1	6
Breadth of the head across the ears, horizontally measured.	0	7
Length of the head	0	9
Breadth of the nose	0	4½

“Other seals have been taken nearly, if not quite, double this size.”

A paper was then read, “On a new Genus of the Family *Lophidæ* (les Pectorales Pediculées, Cuv.) discovered in Madeira.” By the Rev. R. T. Lowe, M.A., Corr. Memb.

The addition, Mr. Lowe observes, of an unequivocal new genus to a family so circumscribed and so singular as *Lophidæ* is well-worthy of remark. The present genus has, besides, further claims on the attention of the ichthyologist in the peculiar combination of distinctive features of its own with characters exhibited by other groups in the same family; and this independent of the interest attaching to the fish in which they are exemplified, from singularity of form and aspect, brilliancy of colouring, locality, and extreme rarity, no other instance of its capture at Madeira having occurred during the last twenty years.

It is nearest allied amongst the groups of *Lophidæ*, in general habit and aspect, with *Cheironectes*, Cuv., although in technical characters it may seem to approach even nearer to *Halieutæa*, Val.

The individual described was taken with an ordinary bait and line at the Picos, a rocky shoal about a league from shore off Camera de Lobos, a village five or six miles westward of Funchal.

CHAUNAX, nov. gen.

Char. Gen. Corpus subcubico-oblongum, sufflatabile, nudum, cute præsertim ad ilia ventremque flaccidissimâ laxâ; anticè obesum, posticè abruptè attenuatum subcompressum. Caput osseum magnum subtetrahedrum, supernè nuchâque latum planatum, utrinque S. ad genas declive; oculis lateralibus spatio interoculari convexo; ore rictuque amplissimis transversis plagio-plateis S. depressis. Dentes intermaxillares vomerinique palatinique parvi scobinati. Nares simplices (nec pedicellatæ nec tubulosæ). Spiracula (foramina branchialia) postica S. ad ilia pone pinnarum pectoralium axillas.

Pinna dorsalis unica; pectoralibus (pedicellatis) carnosis ventralibus jugularibus spathulatis carnosis; analis postica; caudalis simplex truncata.

Cirri, præter unicum in fossulâ internasali, nulli.

Chaunax pictus, Lowe.

D. 11; A. 5; P. 11; V. 4; C. $\frac{1+IV.}{2+II.}$

Species adhuc unica.

Hab. In mari Maderensi.

Shape thick and deep, subcubic, about half as deep as broad, with a puffy flaccid appearance, and evidently capable of vast inflation; bulky forwards, with the head, nape and body of equal depth and thickness, contracting suddenly on the flanks or behind the pectoral fins into a short thickish tail. Back of head and nape as far as the dorsal fin broad and thick, flattened and uneven or irregularly protuberant; thence to the end of the dorsal fin the body is nearly cylindrical, becoming compressed towards the root of the caudal fin.

Head broad and deep; eyes lateral; sides of the head steep, but not flat; mouth very large and wide, but not so wide as the head, horse-shoe or crescent-shaped. Teeth in a distinct brush-like band on the edges of both jaws. Tongue very large, thick, hard and smooth. The nostrils are two inconspicuous, minute, round, simple pores on each side, one a little before the other near the edge of the muzzle. Eyes of moderate size, roundish oval, rather prominent, but not pedicelled.

In the middle of the front of the muzzle is a short, pedicelled, soft, flaccid tentacle or caruncle scarcely more than a semidiameter of the eye in height or length; the whole body destitute of any other tentacle, ray, filament or spine whatever; the top of the head is however irregularly knobbed, or uneven, with bony prominences and depressions.

The breathing-holes or branchial orifices are placed far backwards, considerably behind the hinder axils of the pectoral fins, in the middle of the flanks, which are peculiarly flaccid and flabby. They are oval, ear-shaped, and about the size or diameter of the eyes.

The dorsal fin is single, placed nearly in the middle of the whole length, its height one-fourth of the length of its base.

The anal fin is placed far behind, opposite the end of the dorsal.

The pectoral fins are placed low down about the middle of the length of the body, beneath the origin of the dorsal fin.

The ventral fins are close together, very forward, quite under the throat.

Caudal fin simple, truncate, with a straight edge.

All the fins, except the dorsal and caudal, are thick and fleshy, with the rays strong but indiscernible to the eye, except towards the outer edges of the pectoral fins.

The whole head and body, with the maxillaries and the rays of the dorsal and caudal fins, are finely hispid or shagreened, and rough and scabrous to the touch, the under surface more finely shagreened than the upper.

The whole skin is singularly loose and flaccid. The head and body are, as it were, mapped out into compartments by remarkable chain-like rows of pits or oblong, shining, smooth depressions in the skin. One set or row of these begins upon the muzzle, and passing

above each eye, turns downwards behind it and runs on a level with its lower edge straight along the sides as far as the breathing-holes, thence downwards along the tail to the caudal fin.

Under the lower jaw is a horse-shoe-shaped space enclosed by similar smooth pits, the two ends of which, connected by a transverse chain of pits, turn off backwards towards the corners of the mouth, and continuing low down on the sides of the belly, end underneath the axil of the pectoral fins.

A third wavy line runs along the inner or hinder edges of the maxillaries, and turning obliquely backwards some distance underneath the eye, descends till it meets and is terminated by a fourth obliquely vertical row which crosses the nape like a head-stall, and is terminated low down on the sides of the throat by the second longitudinal line. On the nape the edges of these pits are raised or echinulate, and more disconnected than elsewhere.

Colour of the whole fish above bright orange, beautifully rosy at the flanks and sides, and with the fins and lips vermilion; on the belly it is nearly white or pale, suffused with flesh-colour or rosy, and with the ventral or anal fins deeper vermilion.

The tentacle dull, its stalk orange.

	MEASUREMENTS.	inches.
Whole length		16
From tip of upper jaw to origin of dorsal fin		6
Length of base of dorsal fin		4
Length from end of base of ditto to root of caudal fin		2
Length of caudal fin		3 $\frac{1}{4}$
Length of head		5
Breadth, greatest at fore axil of pectoral fins, from	8 to	10
Depth, greatest half-way, the tip of upper jaw and origin of dorsal fin		4
Depth at root of caudal fin		1
Length from tip of lower jaw to root of ventral fins		4
Length of ventral fins		2 $\frac{1}{4}$
Length from each breathing-hole to root of caudal fin		5
Diameter of eyes		0 $\frac{3}{4}$

Mr. Gould then exhibited to the meeting two new Australian birds, which he characterized as follows:—

MELIPHAGA LONGIROSTRIS. *Vertice et genis nigris; plumis minutis ad basin mandibulæ superioris, mystacibus ad basin inferioris mandibulæ, strigâ superciliari, plumarum cristulâ post aures, plumisque in jugulo setosis, albis.*

Top of the head and cheeks black, with minute white feathers on the forehead round the base of the upper mandible; a superciliary stripe, a moustache at the base of the lower mandible, and a small tuft of feathers immediately behind the ear-coverts white; feathers on the throat white and bristle-like; upper surface brownish black, becoming browner on the rump; wings brownish black, the outer edges of the quills margined at the base with beautiful wax-yellow, and faintly margined with white towards the extremities;

tail brownish black, margined externally at the base with wax-yellow, and with a large oval spot of white on the inner web, at the tip of all but the two centre feathers; surface white broadly striped with black, the black predominating on the breast and the white on the abdomen; irides white; bill and feet black.

Hab. Western Australia.

Total length, 7 inches; bill, 1; wing, $3\frac{1}{4}$; tail, $3\frac{1}{2}$; tarsi, $\frac{3}{4}$.

Remark.—Nearly allied to the *M. Novæ-Hollandiæ*, but differing from that species in the stouter and more lengthened form of the bill, and in having the white patch on the face much less defined.

LIMOSA MELANUROIDES. *Capite, et corpore superiore griseo-fuscis; primariis secundariisque ad basin et tectricibus alæ majoribus ad apicem albis, colore, expansâ pennd, tanquam fasciâ apparente; tectricibus caudæ superioribus albis; caudâ atrâ, nisi rectricibus lateralibus duabus ad basin albis.*

Head and all the upper surface greyish brown, with a small streak of black down the centre of the feathers; wings dark brown; shafts white; base of the primaries and secondaries and tips of the greater coverts white, forming a band when the wing is expanded; upper tail-coverts white, forming a conspicuous mark; tail black, with the exception of the two lateral feathers on each side, which are white at the base and black at the tip; neck, breast and flanks greyish brown; abdomen and under tail-coverts white; irides brown; bill greenish grey, becoming paler on the sides of the upper mandible; legs and feet greenish grey.

Total length, 13 inches; bill, $3\frac{3}{8}$; wing, $7\frac{5}{8}$; tail, $3\frac{1}{4}$; tarsi, $2\frac{5}{8}$.

Hab. Port Essington.

Remark.—Nearly allied to, but differing from, the *Limosa melanura* of Europe in its much smaller size.

October 13.—William Yarrell, Esq., Vice-President, in the Chair.

The following papers were read to the Society:—

“On twenty new species of TROCHILIDÆ or Humming Birds.”
By J. Gould, F.R.S.

Having lately turned my attention to the *Trochilidæ*, I find that, much as this beautiful group has attracted the notice of previous writers, several species remain undescribed.

At a former meeting of the Society I characterized three, and on the present occasion I propose to describe seventeen others, making twenty in all. The species described are contained in my own collection.

1. TROCHILUS (TOPAZA) PYRA. *Troch. abdomine, lateribus, dorso, humerisque, igneis rubro-fulgentibus; capite, auribus, nuchâ, et fasciâ inferiorem collum ornante, intensè atris; guld luminosè viridi, mediâ aurantiacâ; rectricibus intermediis duabus viridibus, purpurascensibus, reliquis autem intensè purpureis; rectricibus duabus intermediis proximis valdè elongatis et ad bases decussatis.*

Abdomen, sides, back, and shoulders, luminous fiery-red; head, ear-coverts, back of the neck, and a band crossing the lower part of

the neck, deep velvety black; throat luminous pale green, passing into rich orange in the centre; two centre tail-feathers purplish green, the remainder deep purple, the feather on each side the centre ones much-elongated and crossing each other near the base; upper tail-coverts luminous light green with red reflexions; under tail-coverts luminous green; primaries purplish brown; bill black; feet blackish brown.

Total length from the tip of the bill to the end of the centre tail-feather, 6 inches; to the end of the elongated feathers, $8\frac{3}{4}$; bill, $1\frac{1}{8}$; wing, $3\frac{1}{2}$; tail, $2\frac{3}{8}$, of the elongated feathers, $4\frac{5}{8}$.

Hab. Rio Negro, Brazil.

Remark.—I consider this to be without exception the most gorgeous species of the Trochilidæ yet discovered. It is somewhat larger than, but of precisely the same form as, *T. pella*, which fine species it far exceeds in the brilliancy of its colouring, and from which it is at once distinguished by the fiery lustre of its body and the purplish colouring of its tail-feathers.

2. TROCHILUS (LESBIA) SMARAGDINUS. *Troch. vertice fulgente viridi; gula nitente cærulea; caudâ perlongâ, furcatâ, fulgentissimâ metallicè viridi; pogoniis rectricum externarum utrisque ad basin et internis reliquarum pogoniis nigris.*

Crown of the head luminous green; throat shining steel-blue; body green, the under surface with a golden tinge; tail very long and forked, metallic green and very luminous; basal portion of both webs of the outer feathers and the inner webs of the remainder black; wings brown; bill black.

Total length, $7\frac{1}{2}$ inches; bill, $\frac{3}{4}$; wing, $2\frac{3}{4}$; tail, 5.

Hab. Bolivia.

Remark.—This beautiful species is nearly allied to the *Ornismya Kingii*, Less.

3. TROCHILUS (LESBIA) GRACILIS. *Troch. gula nitente metallicè viridi; caudâ perlongâ valdè furcatâ; rectricibus externis æneofuscis, æneo colore ad splendentem maculam cujusque in apice plumæ fulgentiore, pogoniorum externorum dimidio basali cervino; reliquis rectricibus aureo-viridibus ad basin fuscis.*

Throat beautiful shining metallic green; the remainder of the body golden-green; wings brown; tail very long, much-forked; the outer feathers bronzy brown, the bronze gradually increasing in intensity and becoming a brilliant spot at the tip; basal half of the outer webs buffy white; remaining feathers brown at the base and shining golden green for the remainder of their length; bill black.

Total length, $6\frac{1}{2}$ inches; bill, $\frac{1}{2}$; wing, $2\frac{1}{8}$; tail, $4\frac{1}{2}$.

Hab. Peru.

Remark.—This species is very closely allied to the *Trochilus Gouldii*, Lodd., vide Proc. of Comm. of Sci. and Corr. of Zool. Soc., part 2, p. 7, which is synonymous with the *Ornismya Sylphia*, Less., but from which it differs in several characters, which upon an examination of many specimens, are found to be constant; the bill is

shorter, the green of the body ochreous, and the lower part of the abdomen more buffy, or not so green as in the *Gouldii*: the most remarkable difference, however, is in the outer tail-feathers, which are much narrower and not so green. By some ornithologists this might be considered as a mere local variation; but as I have seen many of each kind, and find that the differences are constant, I feel assured that the two birds are specifically distinct.

4. *TROCHILUS (OCREATUS) RUFOCALIGATUS*. *Troch. gula et collo superiore fulgentibus metallicè viridibus; tarsis densis plumis ferrugineis ocreatis; caudâ fuscâ, rectricibus externis prolongatis angustis latæ tamen spatulæ formâ terminatis.*

Throat and fore-part of the neck luminous metallic green; plumage of the body bronzy green; wings brown; tarsi clothed with a thick ruff of rusty-red feathers; tail brown, the outer feathers prolonged and narrow, and ending in a broad spatulate tip; bill black.

Total length, $4\frac{1}{2}$ inches; bill, $\frac{3}{4}$; wing, $1\frac{3}{4}$; tail, $2\frac{1}{2}$.

Hab. Bolivia.

Remark.—Nearly allied to the *Ornismya Underwoodii*, Less.

5. *TROCHILUS (OCREATUS) LIGONICAUDUS*. *Troch. facie, collo superiore et pectore viridibus, plumis pectoris majoribus, fulgentioribus, griseo nonnunquam fimbriatis; medio abdomine aureo-fusco; uropygio fasciâ albo-cervinâ transversim ornato; caudâ purpurascente fuscâ, fasciâ latâ per mediam stramineâ; rectricibus lateralibus primo diminuentibus, latis autem tanquam spatulis terminantibus.*

Face and forepart of the neck green, which colour is continued on the chest, where the feathers become larger, longer, more luminous, and some of them edged with grey; centre of the abdomen golden brown; lower part of the abdomen and under tail-coverts buffy brown; wings purplish black; back and upper tail-coverts green, the rump crossed by a band of buffy white; tail purplish brown, with a broad stripe of buff down the centre; the lateral feathers tapering and terminating in a large spatulate tip; bill black.

Total length, $4\frac{1}{2}$ inches; bill, $\frac{5}{8}$; wing, $1\frac{7}{8}$; tail, $2\frac{1}{4}$.

Hab. Brazil.

Remark.—Nearly allied to *Trochilus platurus*.

6. *TROCHILUS (—?) CUPRICAUDA*. *Troch. gula luminosè cæruleo-viridi; vertice, collo, dorso, omnique corpore superiore fulgentibus saturatè purpureo-fuscis; caudâ infrâ fulgentissimâ æned, suprâ, æned vario lumine nunc viridi, nunc purpureâ, splendente.*

Throat lustrous blueish green; crown of the head, neck, back and all the upper surface dark lustrous purplish brown; wings the same, but lighter; under surface of the tail rich fiery copper colour and very luminous; upper surface in one light rich purplish copper colour, and in another greenish; bill black.

Total length, 5 inches; bill, 1; wing, 3; tail, $2\frac{1}{4}$.

Hab. Bolivia.

Remark.—This species is much larger, but belongs to the same

section as the *Trochilus smaragdinicollis* of D'Orbigny and the *T. Allardi* of Bourcier.

7. **TROCHILUS** (—?) **ÆNEOCAUDA**. *Troch. gulâ viridî metallicè fulgente; corpore viridî fusco suprâ commixto; alis fuscis purpurascensibus; caudâ infrâ fulgente æneo-viridî, suprâ metallicè fuscâ, nonnunquam intensè cyaned resplendente.*

Throat luminous metallic green, under surface mingled green and brown; upper surface green, wings purplish brown; under surface of the tail luminous brassy green; upper surface of the tail metallic brown, changing in some lights to deep indigo blue; bill black.

Total length, $4\frac{3}{4}$ inches; bill, 1; wing, $2\frac{1}{2}$; tail, 2.

Hab. Bolivia.

Remark.—Belongs to the same section as the last.

8. **TROCHILUS** (—?) **VIOLIFER**. *Troch. vertice, nuchâ, mento, loris, pectoreque viridibus; mediâ gulâ maculâ semilunari luminosè violaced notatâ; dorso et uropygio aureo-viridibus abdomine inferiore, tectricibus caudæ superioribus inferioribusque, et caudâ rufis.*

Crown of the head, back of the neck, chin, ear-coverts, and breast green; on the centre of the throat a well-defined lunate mark of luminous violet; back and rump golden green; lower part of the abdomen, the upper and under tail-coverts light rufous; tail light rufous, the tips of the feathers washed with greenish reflexions; wings purplish brown; the external edge of the first primary rufous; bill black.

Total length, $5\frac{7}{8}$ inches; bill, $1\frac{5}{8}$; wing, 3; tail, $2\frac{1}{4}$.

Hab. Bolivia.

Remark.—This fine species is of the same form as the *Ornismya Bonapartei*.

9. **TROCHILUS** (**LAMPORNIS**) **CYANOPECTUS**. *Troch. gulâ viridî metallicè resplendente; medio pectore fulgente metallicè cyaneo; capite, dorso, humeris, lateribus, et abdomine inferiore æneo-viridibus; caudâ æneo-fuscâ nonnunquam pogoniis internis albâ maculâ ad apicem ornatis.*

Throat lustrous metallic green; centre of the breast deep lustrous metallic blue; head, back, shoulders, flanks, and lower part of the abdomen bronzy green; wings purplish brown; tail in some specimens entirely bronzy brown, in others bronzy brown with a spot of white on the inner web at the tip; bill black, curved stout and large for the size of the body.

Total length, $4\frac{3}{4}$ inches; bill, $1\frac{3}{8}$; wing, $2\frac{3}{4}$; tail, $1\frac{3}{4}$.

Hab. Venezuela.

Remark.—This bird is about the size of *Trochilus mango*, but is not intimately allied to any known species.

10. **TROCHILUS** (**LAMPORNIS**) **AURESCENS**. *Troch. gulâ fulgente aured; pectore latâ fasciâ rufâ, fronte vittâ lucidâ cæruleo-viridî cinctâ; omni superiore corpore, rectricibus intermediis duabus, tectricibus alarum superioribus inferioribusque, et abdomine æneo-*

viridibus; alis fuscis purpurascensibus; rectricibus lateralibus castaneis fuscis, infrà et suprà ad apices æneis; tectricibus caudæ inferioribus saturatè cervinis.

Throat rich luminous gold colour; across the chest a broad band of deep rufous; on the forehead a narrow stripe of shining blueish green; all the upper surface, two central tail feathers, upper and under wing-coverts, and abdomen bronzy green; wings purplish brown; lateral tail feathers chestnut-brown, tipped both above and beneath with a bronzy lustre; under tail-coverts deep fawn-colour; bill black.

Total length, 4 inches; bill, 1; wing, $2\frac{1}{4}$; tail, $1\frac{1}{2}$.

Hab. Rio Negro, Brazil.

11. *TROCHILUS* (LAMPORNIS?) *FULVIVENTRIS*. *Troch. capite, omni corpore superiore, caudâque nitente viridibus; rectricibus externis ad apices albis; alis fuscis; gula, pectore et abdomine cervinis; tectricibus caudæ inferioribus albis.*

Head, all the upper surface and tail glossy green; the outer feathers of the latter largely tipped with white; wings brown; throat, breast and abdomen deep buff; under tail-coverts white; upper mandible and point of the lower black; the remainder of the under mandible buff.

Total length, 4 inches; bill, 1; wing, $2\frac{3}{8}$; tail, $1\frac{1}{2}$.

Hab. Venezuela.

12. *TROCHILUS* (—?) *NIGROFASCIATA*. *Troch. gula resplendente viridi; abdomine humerisque extremis nitidè cæruleis, ab viridi gula fasciâ semilunari intensè atrâ divisâ; caudâ furcatâ cæruleâ.*

Throat lustrous green; abdomen and edge of shoulders shining-blue, separated from the green of the throat by a lunate band of black; back and wing-coverts brownish green; head and back of the neck bronze; wings brown; tail, which is considerably forked, dull steel-blue; bill black.

Total length, $4\frac{1}{4}$ inches; bill, $\frac{7}{8}$; wing, $2\frac{3}{8}$; tail, $1\frac{7}{8}$.

Hab. Rio Negro, Brazil.

Remark.—Nearly allied to *Trochilus furcatus*.

13. *TROCHILUS* (—?) *RUFICEPS*. *Troch. vertice ferrugineo; gula fulgente æneo-viridi; corpore viridi, infrâ fusco-tincto; caudâ magnâ, furcatâ, æneâ.*

Crown deep rusty red; throat lustrous bronze green; upper surface green; under surface brownish green; tail large and forked, and of a pure bronze; wings purplish brown; bill black.

Total length, $3\frac{3}{4}$ inches; bill, $\frac{3}{4}$; wings, $2\frac{5}{8}$; tail, 2.

Hab. Bolivia.

Remark.—This is much smaller, but nearly allied to *T. heteropogon*.

14. *TROCHILUS* (—?) *INORNATA*. *Troch. corpore superiore æneo-viridi, inferiore ad latera brunneo, æneo splendente; gula plumis ad apices cæruleis; alis caudâque æneis.*

All the upper surface bronzy-green; under surface brown, with bronzy reflexions on the flanks; feathers of the throat tipped with cærulean blue; wings and tail bronzy, all the latter tipped with buff; bill black.

Total length, $3\frac{5}{8}$ inches; bill, $\frac{5}{8}$; wings, $2\frac{1}{2}$; tail, $1\frac{1}{2}$.

Hab. Bolivia.

Remark.—This species is closely allied to the species called *Le Sabine* by the French, *Trochilus* — ?

Hab. Bolivia.

15. *TROCHILUS (LOPHORNIS) REGULUS.* *Troch. plumis in vertice castaneo-fuscis valdè elongatis, acuminatis, ad apices viridibus; guld pectoreque luminose viridibus, plumis ad colli latera elongatis, minus autem quam in Trochilo magnifico; fascid in uropygio alba; caudà castaneo-fusca, plumis singulis aëno-viridibus fimbriatis.*

Feathers of the crown chestnut-brown, very much lengthened, carried to a point, and tipped with green; throat and breast luminous green; the feathers on the side of the neck elongated, but not to so great an extent as in *Trochilus magnificus*; back and abdomen green, with bronze reflexions; rump crossed by a band of white; tail chestnut-brown, each feather margined externally with bronzy green; wings purplish brown; bill light brown, darker at the tip.

Total length, $3\frac{3}{4}$ inches; bill, $\frac{5}{8}$; wing, $1\frac{3}{4}$; tail, $1\frac{1}{4}$.

Hab. Interior of Brazil.

Remark.—This beautiful species is nearly allied to the *T. ornata* and *T. magnifica*, but differs from them in the lesser development of the feathers of the sides of the neck and in the greater size of the crest, which is more largely developed than in any other species known.

16. *TROCHILUS (— ?) HYPOLEUCUS.* *Troch. corpore superiore viridi; gula et corpore inferiore albis; reatricibus intermediis duabus viridibus, reliquis fuscis viridi splendentibus, ad apices albis.*

All the upper surface green; throat and all the under surface white; wings brown; two centre tail-feathers green; the remainder brown, glossed with green and largely tipped with white; bill black; base of the lower mandible paler.

Total length, $3\frac{5}{8}$ inches; bill, $1\frac{1}{2}$; wing, $2\frac{1}{4}$; tail, $1\frac{3}{8}$.

Hab. Bolivia.

Remark.—Nearly allied to *T. leucogaster*, Tschudi, and not far removed from *T. albirostris*, Auct.

17. *TROCHILUS (— ?) HISPIDUS.* *Troch. omni corpore superiore aëno-fusco; auribus saturate fuscis infra et supra lined cervinè marginatis; corpore inferiore griseo-fusco; jugulo latis strigis albis plumisque longioribus ornato; caudà viridi-fusca, reatricibus lateralibus vix albo ad apices pictis, centralibus attenuatis, valdè elongatis.*

All the upper surface bronzy brown; ear-coverts dark brown, bordered above and below with a line of buff; under surface brownish grey, with broad stripes of white down the throat, where the feathers are much elongated; tail greenish brown, the lateral feathers slightly tipped with white; the central feathers much elongated and attenuated towards the apex, the attenuated portion white; wings brown;

upper tail-coverts very broad, much-prolonged and hair-like; bill black, basal half of the under mandible straw-colour.

Total length, $6\frac{1}{2}$ inches; bill, $1\frac{1}{2}$; wing, $2\frac{3}{8}$; tail, 3.

Hab. Peru?

Remark.—This bird belongs to the same section as the *T. Bourcierii*, *T. Guy*, *T. Eurynome*, &c. of Less., and equals in size the largest of them.

The species described by me at the meeting of June 9, 1846, (present vol. pp. 129, 130) were

18. *TROCHILUS* (*PETASOPHORA*) *CORUSCANS*, a beautiful species allied to the *Anais*, but whose locality is unknown to me.

19. *TROCHILUS* (—?) *FLABELLIFERA*, which is nearly allied to, but a much larger species than *T. mellivora*, said to inhabit Mexico; and

20. *TROCHILUS* (—?) *STROPHIANUS*, a fine new species of the same form as the *Clarisse* and the *Parzudaki*.

BOTANICAL SOCIETY OF EDINBURGH.

June 11, 1846.—Professor Balfour, President, in the Chair.

The following communications were read:—

1. "On the presence of Fluorine in Plants," by Dr. George Wilson.

2. "Notice of the discovery of *Luzula nivea*, in a wood at Broomhall, near Dunfermline," by Dr. Dewar.

3. "On the distinctions between *Parietaria erecta* and *P. diffusa* of Mertens and Koch," by Charles C. Babington, M.A., F.L.S.

4. "Observations on some rare Plants gathered in the neighbourhood of Edinburgh," by Dr. Balfour and Mr. Evans. Fresh specimens of some of the rarest of these were exhibited to the meeting, among which may be mentioned, *Oxytropis uralensis*, *Vicia lutea*, *Orobanche rubra*, *Carduus setosus*, *Luzula nivea*, *Lepidium ruderales*, and *Malcolmia maritima*.

July 9.—Professor Balfour, President, in the Chair.

The following communications were read:—

1. "Observations on the Plant yielding the drug Mudar of India," by Dr. Douglas Maclagan.

2. "Remarks on the elongation of the peduncle of *Vallisneria spiralis*," by H. Denny, Esq., Leeds. In this communication Mr. D. alluded particularly to the rapidity of its growth, and to its non-spiral nature, in the specimens of the pistilliferous plant grown by him; he also noticed the rapid evolution of gas from the plants when placed in the sun.

3. "Remarks on the Greenheart, or Beeberu-Bark Tree of Demerara," by Dr. G. R. Bonyun. Dr. B. stated, that the description of the parts of the flower as given by Schomburgk, is not quite correct, and thinks that the plant cannot be referred to the genus *Nectandra*. According to Dr. Bonyun, it has an 8, 10, or 12-partite perigone, outer segments persistent, stamens varying from twelve to